

**BEFORE THE COMMISSIONERS  
AT WAIKATO DISTRICT COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991 (**"the Act"**)

**AND**

**IN THE MATTER** of the hearing of submissions on The Proposed Waikato District Plan – Stage 1, Hearing 18 Rural Topic

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**STATEMENT OF EVIDENCE OF LUCY DEVERALL FOR  
HORTICULTURE NEW ZEALAND**

**15 SEPTEMBER 2020**

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## SUMMARY

1. This industry statement provides a horticultural perspective to the issues set out in the evidence of Mr Vance Hodgson and Ms Lynette Wharfe to assist the Hearing Panel's understanding of what is needed to support the ongoing operation and development of horticulture in the Waikato District.
2. In summary, the key factors required from the Proposed Waikato District Plan in order for horticulture to be successful and thrive include:
  - a) A framework that adequately protects and prioritises the use of versatile productive land for primary, and that sustainably manages and provides for the range of factors and resources which contribute to the productive versatility of land;
  - b) A framework that recognises primary production buildings and structures contribute to the character and amenity of the rural environment;
  - c) A framework that appropriately prioritises primary production and ancillary activities over and above urban development and sensitive activities, and is effective in managing reverse sensitivity such that impacts on primary production are avoided or mitigated; and
  - d) Provisions that adequately provide for the ongoing operation and development of horticulture including:
    - appropriate controls and status for rural industry,
    - provision for purpose-built seasonal worker accommodation,
    - exclusion of artificial crop protection structures from building setbacks and daylight angles,
    - amendments to building coverage controls to appropriately provide for necessary buildings and structures,
    - provisions to enable rapid response to biosecurity incursions.

## INTRODUCTION

### Qualifications and experience

3. My name is Lucy Clarke Deverall. I am the Environmental Policy Advisor – North Island, with Horticulture New Zealand (**HortNZ**). I manage HortNZ's involvement in North Island regional and district planning processes in regions where fruit and vegetables are grown commercially. I have been in this role since September 2017.
4. I hold a Bachelor in Sociology and Political Studies (2005) and a Master in Planning Practice (2007) from the University of Auckland. I am an intermediate member of the New Zealand Planning Institute (NZPI). I have eight years planning experience. During this time, I have performed the functions of a local authority planner and policy advisor and a consultant planner in various locations in New Zealand.
5. My planning experience includes preparation and analysis of land use and subdivision consent applications and presenting technical hearing evidence for both private clients and local authorities. It also includes preparation of submissions and appeals and participation in Environment Court mediations on regional and district planning matters.
6. Since beginning my role at HortNZ, I have visited growers across the North Island, including Waikato Region, to better understand their horticultural operations and how resource management issues impact them.

### Purpose and scope of evidence

7. The purpose of this statement is to expand on some of the key issues identified by Mr Hodgson and Ms Wharfe and provide a horticultural perspective to assist the Hearing Panel's understanding of what is needed to support the ongoing operation and development of horticulture in Waikato District.
8. In preparing this statement I have read the following documents:
  - The s42A reports by Waikato District Council and prepared by Jonathon Cleese and Katherine Overwater, and the supporting documents
  - The evidence of Ms Lynette Wharfe
  - The evidence of Mr Hodgson.

9. To assist in the understanding around the requirements for seasonal worker accommodation, Attachment 1 contains the cabinet minute and paper on seasonal worker accommodation requirements as part of the Recognised Seasonal Worker scheme.
10. Key considerations for horticultural activities addressed in this evidence are:
  - (a) The future for horticulture in Waikato;
  - (b) Managing resources for the ongoing operation and development of horticulture;
  - (c) Providing for land development that supports ongoing operation and development of horticulture.

#### **CURRENT AND FUTURE HORTICULTURE IN WAIKATO DISTRICT**

11. Paragraphs 15 - 20 of the industry statement to Hearing 3 – Strategic Objectives details the horticulture industry currently present in Waikato District and the benefits it affords. In short, there is a range of fruit and vegetable crops grown across the district.
12. Further detail around supporting activities and infrastructure is relevant to this hearing. The majority of post-harvest handling (referred to in PWDP as rural industries including packhouses and coolstores) is done by the grower as part of their operation, but, produce may be transported to the facility from multiple local properties managed by that enterprise. Produce is then distributed to local markets.
13. There are a few larger post-harvest facilities belonging to individual enterprises that process produce from across the district. Produce is packaged and cooled at these facilities before being transported to Tauranga Port or distributed to local markets. Most larger vegetable growers transport produce direct from fields to packhouses in Auckland. HortNZ's submission outlines the important role of Waikato's commercial vegetable production to supporting domestic food supply.

14. The Hearing 3 industry statement and HortNZ's submission discuss the pressures facing horticulture including diminishing land supply, urban encroachment, reverse sensitivity issues, increasing regulation and changing climates. Such pressures are forcing horticulture businesses to relocate from areas such as Auckland. Many unfortunately are also selling land for non-rural development as pressures make business unviable.
15. As discussed by Dr Hill's evidence and HortNZ's submission, there is a limited supply of high class soil, which is a key factor for successful horticulture (discussed further below in this statement). Waikato District is fortunate to contain 4.5% of the country's remaining land classed LUC 1 – 3 (Page 4 of Dr Hill's evidence). This presents an exciting opportunity for growth of the horticulture sector in the district.
16. For instance, in 2019/2020 Zespri growers contributed \$64,000 to Waikato's GDP. Zespri have committed to more than double global sales revenue to \$4.5 billion by 2025. To achieve this, they require an additional 6,500 ha in New Zealand by 2025. Kiwifruit require specific soil and climatic inputs that limit where additional growth can occur in the country. There is the potential for Waikato District to cater for more of this growth.
17. Additionally, Plan Change 1 to the Waikato Regional Plan provides for the expansion of commercial vegetable production (or market gardening as referenced in the s42a report) throughout the Waikato District, beyond Tuakau. Plan Change 1 is subject to appeal. However, the development of a proposed National Policy Statement for Highly Productive Land (NPSHPL) and the latest freshwater management package (including updates to the National Policy Statement Freshwater Management and the National Environmental Standards on Freshwater Management) show clear direction from Central Government in support of managed horticultural expansion.
18. This support and potential for growth should be a consideration when developing the planning framework for rural production in the Waikato District Plan.

## MANAGING RESOURCES FOR THE ONGOING OPERATION AND DEVELOPMENT OF HORTICULTURE

### High class soils

19. I support the intent to protect high class soils within the PWDP. Horticulture is limited in where it may locate due to a reliance on a number of factors, including soil quality. Typically, horticulture is best suited to land classified LUC 1-4, with commercial vegetable production being best suited to LUC 1-2. This type of land is in short supply, with LUC 1 – 2 representing only 5% of New Zealand's landmass and LUC 1 – 3 representing 14%<sup>1</sup>.
20. The classification and quality of soil has a significant impact on the efficiency of outdoor fruit and vegetable operations. Good quality soils assist in production of high quality, high yield produce. Soil quality helps manage the uptake and release of nutrients and water for plants.
21. The Proposed NPSHPL identifies LUC 1 – 3 as a starting point for councils to identify highly productive land. HortNZ's submission to the NPSHPL supported this approach.
22. As discussed in detail in the evidence of Dr Hill, the productive capacity or versatility of land is dependent on a range of factors in addition to soil quality including:
  - Supply of land
  - Access to quality water
  - The right climate – temperature, sunshine hours, rainfall, wind
  - Proximity to reliable transport routes, markets and labour

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<sup>1</sup> Fiona Curran-Cournane, Melaine Vaughan, Ali Memon, Craig Fredrickson 'Trade-offs between high class land and development: Recent and future pressures on Auckland's valuable soil resources' 2014 [https://ac.els-cdn.com/S0264837714000489/1-s2.0-S0264837714000489-main.pdf?\\_tid=5b7e5b49-7e73-495c-8ec3-369768f8c264&acdnat=1549862995\\_9760292b4378403cd35bfc49fb0434c3](https://ac.els-cdn.com/S0264837714000489/1-s2.0-S0264837714000489-main.pdf?_tid=5b7e5b49-7e73-495c-8ec3-369768f8c264&acdnat=1549862995_9760292b4378403cd35bfc49fb0434c3)

- Access to supporting infrastructure and services.
23. HortNZ also see a supportive regulatory framework as a relevant and important factor.
24. The NPSHPL recognises that the productive capacity or versatility of land may become compromised and that it may no longer be suitable for use by primary production activities. HortNZ's submission to the NPSHPL recommended a range of factors that should be considered when assessing the productive capacity of land. Matters to consider include:
25. a) physical and legal constraints and enhancements for the productive capacity of land. The assessment must include all relevant factors, including the following factors, and may include others:
- Water allocation limits and allocation policy;
  - Water quality limits and allocation policy;
  - Lot size;
  - Presence of structures and buildings;
  - Access to transport routes;
  - Access to appropriate labour markets;
  - Supporting rural processing facilities and infrastructure;
  - The current land cover and use and the environmental, economic, social, and cultural benefits it provides;
  - Availability of suitable land for crop rotation;
  - Lack of reverse sensitivity constraints;
  - Access to energy for greenhouses;
  - Access to transport routes;



- Worker accommodation; and
- Other constraints that may limit the use of land for primary production.

b) whether investment could feasibly resolve any of the physical and legal constraints above or identified as relevant to that property.

26. It is on this basis that HortNZ have sought a Non-complying activity status for the subdivision of high class soils in the PWDP. The non-complying activity could include an assessment of the matters listed above.
27. My preference is still for a non-complying activity requiring an assessment of land against the specified matters. However, I recognise that Council may wish to wait until a finalised NPS is notified. This will provide clear guidance in the identification and management of highly productive land and a further plan change may be required.
28. As discussed, horticultural activities can and do occur on a range of soil types. While LUC 1 – 3 are preferable, it is not uncommon for fruit and vegetables to be grown on peat soils and on LUC 4. This is particularly so in various parts of Waikato Region (including Waikato District), Bay of Plenty and Northland. However, as noted, the NPSHPL is anticipated to provide further guidance and direction on identifying high class soils unique to each area. This topic is also likely to be discussed in more detail in the Other Matters Hearing.

#### **Other factors contributing to productive capacity and versatility**

29. As highlighted throughout in the evidence of Ms Wharfe, the Waikato Regional Policy Statement sets clear direction for councils to provide for the continued operation and development of primary production activities. Paragraphs 20 - 22 above identify a range of factors that contribute to the productive capacity and versatility of land.
30. It is my view that Waikato District Council does have a role in the management of many of those factors. In particular:

- Supply of land – controlling fragmentation and location of activities to avoid reverse sensitivity effects.
  - Access to quality water – controls relating to natural hazards, earthworks, vegetation removal and types of activities. Urbanisation also has an impact on quantity and quality of water available for primary production. Adequate water conservation measures and low impact stormwater design are effective measures that can be applied as matters to be considered in consents.
  - Access to labour and supporting infrastructure and services – enabling operation and development of ancillary rural development (including activities, buildings and structures), as well as rural industries and services. Enabling suitable accommodation for farm or seasonal workers.
31. Matters relating to reverse sensitivity and access to labour and supporting infrastructure and services are discussed in further detail below.
32. Ms Wharfe discusses further the role of district council's in supporting regional councils in functions such as management of water quality. Ms Wharfe refers to the objective and policy framework similar to Waipa District Council. I support this approach.

### **Reverse sensitivity**

33. The versatility of productive land is significantly impacted by urban encroachment and the location of sensitive activities that are incompatible with the rural environment. Reverse sensitivity affects growers when occupants of a new activity or sensitive use (e.g. childcare facilities, schools or retirement villages) complain about the effects of an existing, lawfully established horticultural activity or use. Many of the effects of day-to-day rural operations cannot be readily avoided, remedied or mitigated without significant economic burden and operational limitations that reduce economic viability and social licence to operate.

34. From an urban perspective, many of the effects may seem inconvenient, annoying, disturbing or irritating. However, they are a normal and necessary aspect of living in a district that has a strong rural character and healthy developing agricultural and horticultural sectors.
35. Ms Wharfe describes the situation that has occurred in Far North District, Kerikeri where the development of a raft of activities not typical of the rural environment is forcing local citrus and kiwifruit operations to start selling and relocating. The once productive land is being purchased for rural-residential development. One kiwifruit grower located further out in the rural areas of Kerikeri, has a wedding venue located near by which requests all loud machinery be turned off during wedding ceremonies.
36. These issues are just as prevalent in Waikato and other regions. I have spoken to a local berry grower who was forced to reduce the height of his bird netting from 3.5m to 2m due to a neighbour complaint. As a result, tractors with cabs are no longer able to access that part of the orchard. The cab is a necessary part of worker protection from sprays. Artificial crop protection structures are discussed in more detail below but in summary these structures are a critical ancillary function of many fruit sectors and should be seen as being anticipated within the rural environment.
37. I have spoken to other growers in the Waikato District who, despite adherence to good management practices for agrichemical use, sharing spray management plans and undertaking communication with neighbours, are undertaking spraying in the middle of the night or very early morning to avoid unwarranted complaints.
38. Pukekohe is a prime example of where inappropriate zoning and location of sensitive activities in proximity to primary production is having a crippling effect. Most recently, a consent was granted for a private school adjoining cultivated land. The school is located in a Rural Countryside Living zone where such an activity requires Discretionary consent. Although the school is yet to be constructed, it is likely to have even more adverse effects than a residential development. Sensitivities around children's health and wellbeing

will increase concerns around agrichemical spraying and a constant changing school roll makes forming relationships and understanding with parents difficult. An increase in traffic movements on predominately rural roads will also impact the movement of heavy vehicles such as tractors moving between sites and trucks transporting produce.

39. However, the provisions within the Auckland Unitary Plan do not provide adequate consideration of reverse sensitivity effects on adjoining rural land classed lower than LUC 1. Therefore, the concerns raised in HortNZ's submission to that consent were not properly considered in the decision-making process. Furthermore, the grower is leasing the adjoining land so has not been consulted by the applicant.
40. The impacts of reverse sensitivity on the viability and social licence to operate are such that it not only impacts continued operation but inhibits further development. Investment to support development of primary production is less palatable where sensitive activities are present.
41. Urban encroachment and land fragmentation are pushing horticulture out of stronghold areas such as Auckland. Waikato District is one of the few areas left with a high supply of high class soils. The provisions of the PWDP are key to enhancing the versatility of those soils to becoming highly productive land and thereby unlocking exciting opportunities for growth in this district.

#### **Rural character and amenity**

42. In order to effectively manage reverse sensitivity, it is important to set clear expectations of what constitutes rural character and amenity.
43. HortNZ's submission sought insertion of a new policy to define rural character and amenity. The purpose of such a policy is to set a standard for what is anticipated in the rural environment and provide clarity when considering effects on character and amenity and in determining extent of adverse effects.

44. The rural environment is largely characterised by the presence of primary production activities and the associated sights, sounds and smells which accompany these activities. Horticultural operations rely on the use of machinery, structures to support and protect crops, agrichemical and fertiliser application, heavy vehicles to transport produce, and many other activities that may generate smoke, odour, noise, dust, visual and other effects. Open character is a prominent part of rural character, but the presence of buildings and structures for primary production activities are also distinct, critical features.
45. A lack of understanding around rural character and amenity, coupled by poor planning in location of sensitive activities, exacerbates reverse sensitivity issues.
46. The s42a's recommended framework to address rural character and amenity, in my opinion, portrays a distinct lack of understanding of rural environments. The evidence of Ms Wharfe provides a planning analysis of the recommended framework and commentary on impacts for horticulture. I concur with her evidence and make the following additional comments.
47. The s42a recommends new policy 5.3.2 that lists specific farming types and their generalised locations. This immediately limits the growth of rural production activities by setting an expectation around the types of rural production, and where it may occur. This is inconsistent with the RPS direction to provide for continued operation as well as development of primary production. As discussed, there is a real opportunity for horticultural growth within the Waikato District.
48. The recommended s42a framework provides strong policy support for a wide range of sensitive community activities as being anticipated within the rural environment. The grouping of activities within the objectives and policies, and the following rules and activity standards, imply an elevated priority of sensitive or community activities on par with ancillary rural production and rural industry activities. The strong support and prioritisation at the policy level will

have significant weight for processing planners in considering consent applications.

49. HortNZ has a strong stance that the onus of managing potential reverse sensitivity effects should not lie with primary production activities or ancillary rural activities that are anticipated in the rural environment. Controls such as setbacks and daylight angles should be the responsibility of any sensitive activity that is not reasonably anticipated in the rural environment.
50. As discussed above in this statement, sensitive activities can have significant restraints on horticultural operations. While HortNZ accepts the need for some services to support local rural communities, I question whether many of the activities defined in the s42a (particularly childcare, education facilities and retirement villages) can truly claim to have a functional or operational need to locate in the rural environment.

## **PROVIDING FOR APPROPRIATE LAND DEVELOPMENT FOR CONTINUED OPERATION AND DEVELOPMENT OF HORTICULTURE**

### **Rural industry**

51. Rural industry is paramount to the continued operation and development of horticulture. Most commonly this includes packhouses and coolstores but may also include vegetable washing facilities. These rural industry facilities vary in scale. The majority will service one enterprise – a single business that extends over multiple properties. The scale of the facility will depend on the size and number of properties managed by the enterprise. A few larger scale facilities are also common within a district. These facilities process produce from a much wider area across the district and sometimes from other regions. They may also process a range of produce from different enterprises.
52. Regardless of scale, these facilities need to be in proximity to primary production activities. Particularly for horticulture, the time between harvesting and storing for distribution impacts the quality of the produce. The longer it takes to get to the coolstore, the greater

impact to the quality of the product. Delays can result in produce being rejected at the market destination resulting in economic loss to the grower.

### **Seasonal worker accommodation**

53. The s42a report recognises the need for seasonal workers and accompanying accommodation but rejects HortNZ's submissions due to concerns around potential misuse of these buildings and the undermining of strategic directions around urban growth in rural areas.
54. The evidence of Ms Wharfe outlines an amended suite of provisions for worker accommodation. In support for the need of a tailored approach, the following paragraphs highlight the critical function of seasonal worker accommodation and provide insight to the required quality and unique design of seasonal worker accommodation.
55. It is HortNZs position that workers accommodation in rural production zones is required to support food production activity. The need relates to the type of work, locational aspects and the need in some circumstances to provide onsite accommodation as part of a duty of care for seasonal worker from overseas.
56. The Recognised Seasonal Employer (RSE) scheme was established by the New Zealand Government to assist horticulture and viticulture industries to recruit workers from Pacific countries in times of low supply of local workers. Seasonal workers are applied in packhouses and orchards. It is not uncommon for a group of seasonal workers to be deployed across a number of small independent businesses.
57. When purpose built facilities are not available, accommodation is found across a mixture of campgrounds, backpacker facilities and dwellings. Vans are used to make multiple trips to across areas to transport workers to and from work.
58. Without seasonal workers to manage peak demand, there is a real risk of food shortages. This has been highlighted through recent

Covid-events where limitations on worker availability and mobility have significantly impacted supply of fresh fruit and vegetables<sup>2 3</sup>.

59. In December 2017, the number of people able to be employed under the RSE was increased to 11,100 to account for an increasing shortfall of workers. With the increase in RSE numbers, the associated cabinet paper and minute<sup>4</sup> also sought additional requirements of the industry including:
  - Provision of purpose-built accommodation for seasonal workers to reduce pressure on an already strained housing supply; and
  - Businesses to demonstrate employment and pastoral care practices prior to qualifying. This includes the provision of an acceptable standard of accommodation.
60. Currently, in the Waikato, seasonal staff numbers are predominately made up of foreign travellers, and local New Zealanders. However, the increase in production and market demand means growers are finding they are unable to employ enough local people to keep up and are anticipating the need to utilise the RSE scheme. Elsewhere in New Zealand, when employing under the RSE scheme, most businesses tend to apply for large numbers of workers rather than just a few.
61. Therefore, in order to meet Government requirements of purpose-built accommodation and pastoral care, seasonal worker accommodation is anticipated to be larger than a standard dwelling or minor dwelling.
62. Accommodation for seasonal workers needs to be located in proximity to rural production activities. Not only is it more efficient,

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<sup>2</sup> <https://www.rnz.co.nz/news/country/415782/horticultural-labour-shortage-could-mean-food-shortage-industry-warns>

<sup>3</sup> <https://www.stuff.co.nz/national/health/coronavirus/120487614/coronavirus-horticulture-sector-short-1300-seasonal-workers>

<sup>4</sup> Attachment 1 to this industry statement



but it reduces other impacts to the wider community by minimising vehicle movements and freeing up housing supply.

63. Furthermore, in 2008, the Department of Building and Housing prepared the Code of Practice for Able Bodied Seasonal Workers. This exempts seasonal worker accommodation from providing access and facilities for those less physically mobile. This was in recognition of the physical capacity required when undertaking horticultural tasks. This exemption has been upheld in recent caselaw<sup>5</sup>.
64. In recognition of the need for advice around providing suitable accommodation that is both safe and sanitary for seasonal workers, and meeting a raft of regulatory requirements, HortNZ prepared a *Guidance document to Assist the Development of Seasonal Workers Accommodation*. A copy of this document was attached to the evidence of Mr Hodgson in Hearing 5 - Definitions.
65. As acknowledged in the HortNZ guidance document, seasonal worker accommodation is different to residential dwellings. They can have several separate buildings that make up the workers accommodation complex. This includes separate ablution blocks and common rooms and separate bedrooms. They are generally purpose built and do not need to provide accessible facilities, as all workers are able bodied by the very nature of the work. Therefore, this type of accommodation can have a different character and intensity to a standard urban dwelling.
66. HortNZ's submission and Ms Wharfe's evidence recommend including compliance with the code of practice as an activity standard. This would then limit the ability for commercial use during off-peak seasons.
67. It is also relevant to note that some seasonal work extends up to 10 months, normally coinciding with demand for travel accommodation.

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<sup>5</sup> Western Bay of Plenty District Council v Colin Limmer [2020] NZDC 12902 [10 August 2020]

This then limits the opportunity for these facilities to be used commercially.

68. The Section 42A author rejects the HortNZ submissions on raising a primary concern that permitting additional residential units for farm workers could lead to a proliferation of new dwellings in rural areas. I do not share the same concern. These are bespoke forms of accommodation, required to support rural production. I struggle to rationalise a plan that does not provide a clear regulatory pathway for a necessary ancillary farming activity but does provide a permitted activity pathway for Minor Dwellings (with controls) who's occupants may have no relationship with those in the principal dwelling or a farming activity or rural environment itself. Effectively permitted new and additional sensitive residential activity into a working rural production environment.
69. The Waikato District is a critical district for domestic supply of fresh vegetables and maintain food security for New Zealanders. Farm workers are integral or sustaining rural production systems in the District and a workable Waikato District Plan regulatory framework is required. Notably there are commercial vegetable producers that operate across the Auckland-Waikato regional boundary who will be in a perverse situation whereby they may need to build workers accommodation in the Rural Production Zone in Auckland for rural production activity in the Waikato. An inefficient a potentially unsustainable approach for rural production in the Waikato.

#### **Artificial crop protection structures**

70. The s42a report recommends that rules relating to setbacks and daylight angles continue to apply to artificial crop protection structures.
71. Historically, and with changing practice, crop types and diversification in the horticultural sector, growers have become increasingly reliant on a variety of artificial crop protection structures to support rural production activities.

72. These ancillary structures are a critical component for a number of sectors including kiwifruit, berry, persimmon, apples, pears and nashi. They provide a range of benefits including protection from sunburn, windburn, hail, frost and birds, assistance with spray coverage, reduced mowing and weeding, assisting pruning and picking.
73. There are a range of resource management and building consent issues that have arisen across the country and it has been HortNZ's experience that the response by regulatory authorities to these issues has been inconsistent. Much of the inconsistency has arisen from a lack of understanding of the requirements for this form of horticulture and how best to address in district plans and interpret through the Building Act.
74. From a resource management perspective, HortNZ has consistently sought that planning frameworks should differentiate between covered cropping that relies on greenhouses, which are a totally enclosed structure where plants are grown in a controlled environment, and other forms of crop cover that are permeable and rainfall passes through, being Artificial Crop Protection Structures and where crops are grown in soil.
75. The description of the structures in the s42a report is accurate. Below are pictures of some of the structures typical to kiwifruit and berries. Traditionally, crops are planted right up to the boundary to maximise the potential of rural production land. Accordingly, artificial crop protection structures are also in proximity to boundaries to cover the whole crop and ensure a high quality and yield to meet market demand.



**Photo 1: Artificial crop protection structures – Kiwifruit**



**Photo 2: Artificial crop protection structures – Kiwifruit**



Photo 3: Bird netting – Berries



Photo 4: Bird netting – Berries



**Photo 5: Artificial wind shelter – Berries**

76. As mentioned above, such structures are essential for protecting fruit from climatic events, wind and birds. For instance, wind rub in kiwifruit can downgrade the fruit significantly and hail can split the fruit, making it of little value. Traditionally live shelter was used, but increasingly growers are using artificial crop protection as it provides benefits immediately and can also provide horizontal as well as vertical protection.
77. As artificial crop protection structures are made of permeable material, rain and wind can pass through the structure, but the intensity is reduced. For that reason, HortNZ supports exclusion from building coverage controls as recommended in the s42a report.
78. Such structures are generally not totally enclosed, in that the cloth does not come to the ground level or some sides may be open. Some structures are vertical, but increasingly the benefits of overhead shelter are being recognised. In some locations, the horizontal 'roof' material is pulled back during winter (when plants are not fruiting) to prevent deterioration of the cover that can be caused by winter weather.

79. The colour of netting is particularly important. Green or black netting on vertical surfaces affords less glare and is visually less prominent on the landscape. However, for most fruit and particularly kiwifruit, white netting on the horizontal surface is critical to allow light through. Light is fundamental for photosynthesis, plant growth and health. Requiring green or black cloth on horizontal surfaces will destroy the crop and render the operation unviable.
80. I note that the s42a report makes reference to red coloured netting. This is not a colour currently used in the North Island. It is specific to the South Island growing conditions.
81. Requiring these structures to meet the recommended setback controls will result in the majority of orchards being unviable. There would be no point in planting up to the boundary, if unable to cover the entire crop. Neither can plants be positioned closer together to create space for these boundary setbacks. Space is required between rows to allow for tractors and other necessary machinery.
82. Imposing daylight controls will also impact the viability of orchards. Artificial crop protection structures for kiwifruit orchards need to be at least 8m in height to allow for trees to reach maximum growth. As mentioned in paragraph 36, even on orchards for smaller plants such as berries, artificial crop protection structures need to be a minimum of 3.5m to allow for tractors with cabs.
83. The RPS sets a clear direction to provide for continue operation and development in primary production, and to prioritise rural production over those activities that are not dependent on rural resource or proximity to primary production activities. This should be extended to changing practices which seek to improve, and become critical to, the day-to-day operation and efficiency of primary production activities, such as artificial crop protection structures. It is noted that visual impacts can be managed through colour choice on vertical surfaces.

#### **Building setbacks generally**

84. The setback controls notified in the PWDP and recommended in s42a report will significantly limit the versatility of productive land.

Given the limited supply of versatile, productive land suitable for horticulture, cropping and planting generally occurs as close to the boundary as possible in order to maximise use of productive land.

85. For practical and operational reasons, it is preferable to locate buildings and structures closer to the boundary. For buildings such as farm sheds and packhouses, locating close to the boundary allows for a more efficient layout and location of rows to assist in planting, pruning, spraying and harvesting. Other buildings, such as artificial crop protection structures, greenhouses and tunnels, need to cover the entire crop to afford proper protection to plants and produce.
86. These latter buildings in particular are in increasing demand to assist in managing unpredictable weather patterns as a result of climate change. They are also critical to unlocking the potential for future horticulture growth in Waikato District where the climate is colder than other regions such as Auckland and Bay of Plenty.
87. The proposed and recommended building setbacks would result in the majority of productive land being rendered unusable, thereby completely eradicating the productive versatility of that land.

### **Biosecurity**

88. I concur with the comments made in Ms Wharfe's evidence regarding biosecurity (paragraphs 15.7 – 15.21). Biosecurity risks to primary production activities are significant and could have serious impacts on the wider ecological health, and for both rural and urban communities, particularly the production of food.
89. In the event of a biosecurity incursion of an unwanted organism, a rapid response to manage spread is necessary. Vegetation removal, burial, burning, spraying of material are methods that may be used, including in riparian areas. As discussed by Ms Wharfe, the 2010 PSA incursion highlighted District Planning hurdles to undertaking rapid response.
90. Given the urgency required, it is not practical to have to obtain resource consents. The proposed plan needs to include provisions



to enable rapid disposal or treatment of material in response to a biosecurity incursion.

**Lucy Deverall for horticulture new zealand**

15 September 2020